



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.				
10/541,691	04/13/2006	Gcorg Bostanjoglo	2002P17431WOUS	1935				
7590 09/05/2007								
John P. Musone Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830		<table border="1"><tr><td>EXAMINER</td></tr><tr><td>MALEKZADEH, SEYED MASOUD</td></tr></table>			EXAMINER	MALEKZADEH, SEYED MASOUD		
EXAMINER								
MALEKZADEH, SEYED MASOUD								
		<table border="1"><tr><td>ART UNIT</td><td>PAPER NUMBER</td></tr><tr><td>1722</td><td></td></tr></table>			ART UNIT	PAPER NUMBER	1722	
ART UNIT	PAPER NUMBER							
1722								
		<table border="1"><tr><td>MAIL DATE</td><td>DELIVERY MODE</td></tr><tr><td>09/05/2007</td><td>PAPER</td></tr></table>			MAIL DATE	DELIVERY MODE	09/05/2007	PAPER
MAIL DATE	DELIVERY MODE							
09/05/2007	PAPER							

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/541,691	BOSTANJOGLO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	SEYED MALEKZADEH	1722	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### Response to Amendment

Claims 11-26 are pending.

In view of the amendment, filed on 06/20/2007 following rejections are withdrawn from the previous office action for the reason of record.

- Rejection of claim 24 under 35 U.S.C. 112, second paragraph because of new claim amendment

In view of amendment, filed on 06/20/2007 following rejections are maintained for the reason of records as given in the previous office action. The bases of these rejections are the same as given in previous office action, mailed on 03/20/2007.

- Rejection of claims 22-24 under 35 U.S.C. 102 (b) as being anticipated by Kear et al (US 4,250,229). Kear et al (US 4,250,229) further teaches the new limitations of amended claim 22 such as "an intermediate layer having no single-crystal or directional structure bonded to the substrate (See lines 42-55, column 3; and also lines 51-68 and also lines 6-11, column 4); and layer material with a single crystal structure formed on the intermediate layer. (See lines 65-68, column 5 and lines 1-13, column 6).
- Rejection of claims 11-15, 17-21, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurz et al (US 6,024,792) in view of

Kear et al (US 4,250,229). Furthermore, Kurz et al ('792) in view of Kear et al ('229) teach the limitations of new added claim 25. Further Kurz et al ('792) teach depositing a single crystal material overlayer made by epitaxial growth of a layer applied by a first material application. (See lines 58-67, column 1; and lines 21-33, column 33). Furthermore, Kear et al ('229) disclose interlayer foil with an amorphous metal structure produces an improved brazed or diffusion bonded structure (See lines 29-36, column 3), which the interlayer is neither a single crystal, nor directional structure on the substrate. Also Kear et al ('229) teaches the intermediate layer is applied via a second application process, which is different than the first material application process. (See lines 58-68, column 8; and also lines 1-20, column 9)

- Rejection of claims 16 and 26 as being unpatentable over Kurz et al. ('792) and Kear et al. ('229) as applied to claims 11-15, 17-21, and 25 and further in view of prior art submitted by the applicants, Caballero (US 5,213,907). Caballero ('907) teaches a method of electrodepositing metal alloys which causes the alloy to diffuse into the surface of a substrate and chemically bond as by a polar-covalent bond to the substrate at the interface between the alloy and the substrate (See lines 28-34, column 2). Further, Caballero ('907) teaches the metal alloy, which is deposited by

the electrodepositing method is dense, hard, ductile and highly reflective.  
(See lines 21-25, column 2).

### **Response to Argument**

Applicants argue that Kear et al teaches away from the limitations of claims 22-24 because he teaches a three-layer structure wherein the intermediate layer takes on the single crystal properties of the other layers, thus the rejections under 35 USC 102 are not supported by the art and should be withdrawn.

This is not found persuasive because Kear et al clearly teaches all the limitations of claims 22-24 as discussed in previous office action and also above. Further applicants attention is drawn to the point that claims 22 –24 are drawn to a product, which is obtained by the process and therefore will be treated as required via MPEP 2113 [R-1]. MPEP 2113 [R-1] explain “Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.”

Applicants argue that Kurz et al teaches away from any layer being formed without the crystal structure of the underlying layer, and his entire invention is directed to forming a monocrystal structure.

This is not found persuasive because applicants attention is drawn to the point that Kurz et al has not been used alone, but it is a combination rejection made over Kurz et al. (US 6,024,792) and Kear et al. (US 4,250,229). Kurz et al. ('792) and Kear et al. ('229) clearly teach applying an intermediate layer where no single-crystal or directional structure occurs on the substrate.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on (571) 272-1316. The fax number for the organization where this application or proceeding is assigned is 571-272-8300.

Art Unit: 1722

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SMM

  
YOGENDRA N. GUPTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700